A method for generating electrically conducting and/or semiconducting structures in three dimensions in a matrix that includes two or more materials in spatially separated material structures is disclosed. An electric field is applied to the separate material structure and the field is modulated spatially according to a protocol. The protocol represents a predetermined pattern of electrically conducting and/or semiconducting structures that are generated in the material structure in response to the field. The matrix composed by the material structures includes structures of this kind in three dimensions.

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